CLAIMS

1. A deviation angle detector, comprising:

a plurality of resolvers, wherein each of the resolvers includes a rotor, a stator, a single excitation winding, and multiple output windings, and each of the windings is coiled around a corresponding stator, wherein:

a difference in rotation angles between the resolvers is detected as a deviation angle by determining output signals that correspond to the rotation angles of each of the resolvers;

the output windings that correspond to each of the resolvers are serially connected, and the output signals are extracted from the serially connected output windings; and

one of digital and analog processing is performed on the output signals of the resolvers.

2. A deviation angle detector in accordance with Claim 1, wherein the output windings of each of the resolvers further comprise two types of windings, the phases of which are shifted by 90°.

3. A deviation angle detector in accordance with Claim 1, wherein the output signals from the serially connected output windings are input to one of a single analog calculation converter and a single digital calculation converter.

4. A deviation angle detector in accordance with Claim 2, wherein the output signals from the serially connected output windings are input to one of a single analog calculation converter and a single digital calculation converter.

5. A detector, comprising:

a first resolver including a first stator, first sine and cosine windings on the stator, the first sine and cosine windings being displaced from one another by ninety electrical degrees, a first excitation winding on the stator, and a first rotor providing poles for varying the reluctance between windings according to a rotor position θ_1;

a second resolver including a second stator, second sine and cosine windings on the stator, the second sine and cosine windings being displaced from one another by ninety

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electrical degrees, a second excitation winding on the stator, and a second rotor providing poles for varying the reluctance between windings according to a rotor position θ_2, wherein the first and second sine windings are serially connected and the first and second cosine windings are serially connected; and

a controller for calculating a deviation angle $\Delta\theta$ of the first and second resolvers based on an output signal from the serially connected sine windings and an output signal from the serially connected cosine windings.

6. A detector in accordance with Claim 5, wherein the deviation angle $\Delta\theta$ is represented by the equation $\Delta\theta = (\theta_1 - \theta_2)$.

7. A detector in accordance with Claim 5, wherein the sine value of the first and second resolvers is represented by Es, the cosine value of the first and second resolvers is represented by Ec, and $\Delta\theta = \tan^{-1} (Es/Ec)$.

8. A detector in accordance with Claim 5, wherein a range of the deviation angle $\Delta\theta$ is $\pm 90°$.

9. A detector in accordance with Claim 5, wherein the detector includes a digital converter connected to the first and second sine and cosine windings for converting sine and cosine values of the first and second resolvers into digital values, wherein the controller is connected to the digital converter for receiving the digital values.